BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Certificate in Land-based Studies Pearson BTEC International Level 3 Subsidiary Diploma in Land-based Studies Pearson BTEC International Level 3 Foundation Diploma in Agriculture Pearson BTEC International Level 3 Diploma in Agriculture Pearson BTEC International Level 3 Extended Diploma in Agriculture Pearson BTEC International Level 3 Foundation Diploma in Horticulture Pearson BTEC International Level 3 Diploma in Horticulture Pearson BTEC International Level 3 Extended Diploma in Horticulture
Unit number and title	Unit 47: Sustainable and Renewable Land-based Practices
Learning aim(s)	**A:** Explore waste and waste products arising from different land-based operations **B:** Plan renewable environmental management strategies for land-based operations **C:** Understand passive and active energy reduction technologies and their feasibility for implementation.
Assignment title	**Sustainability and Renewable World**
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You have been invited to present at the International Conference of Sustainability and Renewables in Europe with your employer. You will need to produce a professional conference poster and a feasibility study to discuss with industry experts and visitors to the conference.
Task 1	Produce a professional conference poster focusing on waste and waste products in either agriculture or horticultural practices (or a mixture of both) which is clear and includes: • Waste products arising from different agricultural or horticultural operations • Waste management • Problems with types of waste, including long-term environmental impacts, economic impacts and degradability • Effects of the production system on soil, water and air.
Checklist of evidence required	A conference poster.

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
A.D1	Justify the types of waste produced and how it is processed in agriculture or horticulture
A.M1	Analyse the types of waste produced and how it is processed in agriculture or horticulture.
A.P1	Identify the types of waste produced in agriculture or horticulture.
A.P2	Explain how waste products are processed in agriculture or horticulture.
Task 2	You will produce a written plan for renewable environmental management for either a agricultural or horticultural operation. Your plan should focus on how the operation can implement management strategies, including: • Types of renewable energy • Impact of activities on land, water and air • Renewable energy options for electricity production. • Renewable energy options suitable for heat generation • Energy usage and inefficiencies • Energy Planning • Sustainability and reliability of renewables. Following on from your plan you should discuss passive and active energy reduction technologies and their feasibility for implementation in your operation. Include current technologies and recommendations for their use.
Checklist of evidence required	A written report.
Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
BC.D2	Evaluate renewable strategies for energy production and energy reduction technologies, and the feasibility of implementation in agriculture or horticulture.
C.M3	Explain energy reduction technologies and the feasibility of implementation in agriculture or horticulture.
B.M2	Assess renewable energy strategies and renewable environmental strategies for energy production.
B.P3	Outline renewable energy strategies.
B.P4	Plan a renewable environmental strategy for energy and production.
C.P5	Outline passive and active energy reduction technologies in agriculture or horticulture
C.P6	Explain the feasibility of implementing reduction technologies

Sources of information to support you with this Assignment	**Books** Everett, B. et al. (2011). *Energy Systems and Sustainability: Power for a Sustainable Future*. 2nd ed. Oxford: OUP Oxford. ISBN-13: 978-0199593743 Andrews, J. Jelley, N. (2017). *Energy Science: Principles, Technologies, and Impacts*. Oxford: OUP Oxford. ISBN-13: 978-0198755814 Singh, S. Kumar, S. (2018). *Green Technologies and Environmental Sustainability*. London: Springer. ISBN-13: 978-3319844541 **Journals/Magazines** Agronomy for Sustainable Development Renewable Energy Magazine Renewable & Sustainable Energy Reviews **Websites** ucsusa.org agritechtomorrow.com nature.com